



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

REVIEWS

Lockatong Formation of the Triassic of New Jersey and Pennsylvania. By A. C. HAWKINS. *Annals N.Y. Acad. Sci.*, XXIII. 145-76, Plate I, January 27, 1914.

The Lockatong formation is the middle member of the Newark series of the Triassic, extending from a point just west of Phoenixville, Pennsylvania, to Princeton, New Jersey. The rocks of the formation are dense, fine-grained, massive argillites, with some shales. The formation as a whole has a decidedly lens-like character. On the basis of the general structure, lithologic character, and type of fossils, which include estheriae, fish-scales, ostracods, and plant remains, it is concluded that the sediments were laid down near the center of an inland basin. The particles of the argillite are for the most part cemented by silica, which renders the formation very hard and a pronounced ridge-maker. The color of the beds is due to iron in various states of oxidation. The boundaries of the Lockatong are very uncertain, owing to the fact that it passes by a series of transitional dovetailing strata into the other formations of the Newark. Since part or all of the Lockatong may be contemporaneous with portions of the Stockton and Brunswick formations elsewhere, it seems that as a definite geological time unit the Lockatong is valueless. There are three principal joint directions in the Lockatong formation, the most important of which is remarkably constant, and extends into the borders of a diabase mass near Rocky Hill, which is interpreted as an extension of the Palisade sill. Titanium minerals, brookite and ilmenite, are found in this major joint series, apparently far removed from the diabase. Analcite and barite also occur. That these minerals are derived from the igneous rocks is indicated by similar occurrences in New Jersey elsewhere. Parts of the Lockatong argillite are very well adapted for commercial use.

R. C. M.

Geological Map of Tennessee. Compiled by OLAF P. JENKINS, A. H. PURDUE, State Geologist.

This map represents Archean, Cambrian, Ordovician, Silurian, Devonian, Mississippian, Pennsylvanian, Cretaceous (Upper), Eocene, Pleistocene, and Recent formations. Few states have so wide a range

of systems, Proterozoic, Permian, Lower Cretaceous, Miocene, and Oligocene only being absent. Pliocene (Lafayette) is indicated in the legend of the map but not shown on the map itself, and the legend seems to be intended to throw doubt on the validity of the formation in Tennessee.

Under the designation "Columbia Formation," loess, loam, and loose sand are grouped. This seems to us an unfortunate classification. The "Terrace Deposits" of the map are quite as appropriately classed as "Columbia" as the loess and loam which are so classed. We are of the opinion that the use of the term "Columbia Formation" should be discontinued (though possibly the term "Columbia Series" may be useful to include all Pleistocene non-glacial formations). What was originally grouped under the name Columbia included several formations of which the probable equivalents of the Terrace Deposits of this map were a chief member. "Loess" would seem to be an adequate designation of the deposits included under that term, without classing them as Columbia. Their classification as Pleistocene seems altogether adequate. The loess, of many regions at least, is of very different ages, and all of it does not belong to one formation in the chronological sense.

The map is distinct and represents sufficient change from its predecessors to be welcome. It is accompanied by elaborate explanatory legends and by four cross-sections which represent well the structure of the formations in the state.

The map may be had by application to the State Geologist, Nashville, Tennessee. Postage, 8 cents.

R. D. S.

Cretaceous Deposits of the Eastern Gulf Region, and Species of Exogyra from the Eastern Gulf Region and the Carolinas. By L. W. STEPHENSON. U.S. Geol. Surv., Prof. Paper 81, 1914. Pp. 75, pls. 21, charts 8.

In eastern Alabama and Georgia a terrane, previously regarded as forming the eastward extension of the Tuscaloosa series of western Alabama, has been shown by its unconformable relations with overlying formations, lithologic character, and contained plant fossils to be of Lower Cretaceous (Comanchean) age, though probably somewhat younger than the Patuxent. Belonging to the Upper Cretaceous (Cretaceous) of the eastern Gulf region are four formations, Tuscaloosa (regarded as Lower Cretaceous), Eutaw, Selma chalk, and